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(71) Applicant (for all designated States except US): OPTI-
TUNE PUBLIC LIMITED COMPANY [GB/GB]; St
George's House, 61-65 Conduit Street, London W1R 9FD
(GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): KARKKAINEN, Ari
[FI/FI]; Kontiotie 7 #F 69, Fin-90530 Oulu (FI).

(74) Agent: DUTTON, Erica; Rosemount, Pednorvale Road,
Chesham, Buckinghamshire HP5 2ST (GB).

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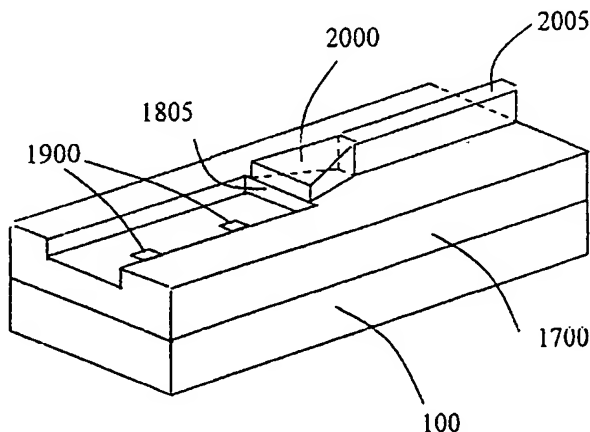
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(54) Title: COMPONENT PACKAGING AND ASSEMBLY



(57) **Abstract:** A packaging layer (200) for a wafer level assembly is fabricated from a glass material comprising both inorganic and organic components. This allows matching between the coefficient of thermal expansion of the packaging layer and that of other materials in the wafer assembly, particularly electrical interconnect materials. It is also possible to introduce properties to support such methods as photolithographic and low temperature processing of the packaging layer. This can improve fabrication accuracy and allows the packaging layer to be used with structures in a wafer assembly which might be damaged by high temperature processing, such as active optoelectronic devices and integrated circuits. Another major advantage is that the glass material can be used to provide optical characteristics as well as mechanical protection. The refractive index and other optical properties can be preselected and thus the glass material can be used for instance for waveguiding and index matching.



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